

GEO Health Community of Practice (CoP)
Telecon: Vector-borne Diseases in the Americas
March 30, 2021

In Attendance: 58 participants

John Haynes (NASA), Helena Chapman (NASA HQ/BAH), John Balbus (NIEHS), Trisha Castranio (NIEHS), Steven Rekant (USDA), Stan Benjamin (NOAA Global Systems Lab), Justyna Nicinska (NOAA), Laura Mulvey (NASA HQ), Michael Garay (Jet Propulsion Laboratory), Cynthia Hall (NASA Earth Science Data Systems), Dorian Janney (GPM mission/NASA GLOBE Program), Neranga Liyanaarachchige (CDC Health Informatics Team, Division of Global HIV/TB), Helen Amos (NASA Goddard/SSAI), Assaf Anyamba (USRA/NASA Goddard), Mariel Friberg (NASA Goddard), Sushel Unninayar (NASA/GSFC & GESTAR/MSU), Leo Goldsmith (USGCRP), Bob Chen (CIESIN at Columbia U.; NASA SEDAC), Mike Gremillion (Global Water Security Center, U. of Alabama), Cascade Tuholske (Earth Institute/CIESIN at Columbia U.), Rita Colwell (U. of Maryland, College Park), Ben Zaitchik (Johns Hopkins U.), Antar Jutla (U. of Florida), Aaron Naeger (U. of Alabama in Huntsville), Josh Colston (U. of Virginia), Susan Anenberg (George Washington U.), William Pan (Duke U.), Ali Akanda (U. of Rhode Island), Eric Coker (U. of Florida), Moiz Usmani (U. of Florida), Kristen Chen (U. of Florida), Mayank Gangwar (U. of Florida), Yusuf Jamal (U. of Florida), Thilanka Munasinghe (Rensselaer Polytechnic Institute), Osuolale Olayinka (Elizade University, Nigeria), Adrian Guzmán (Mexican Space Agency), Naledzani Mudau (South African National Space Agency), Jan Ramboer (European Commission), Marjan van Meerloo (European Commission), Juan Castillo (PAHO), Sandra Gewehr (Ecodevelopment S.A., Greece), Katerina Kyratzi (National Observatory Athens, Greece; EuroGEO Action Group for Epidemics), Mirka Rossi (National Observatory of Athens, Greece), Haris Kontoes (NOA, EuroGEO Action Group for Epidemics), Gina Tsarouchi (HR Wallingford, UK), Bernd Eggen, Ian Coady (UK Foreign, Commonwealth and Development Office), Melissa MacDonald (Environment Climate Change Canada), Celine Audette (Environment and Climate Change Canada), Sandra Gómez (UNITEC, Honduras), Luis Chaves (Costa Rica), Bailey Magers, Chris L., Emily Gray, Kanan Patel, Michalis Koureas, Rose Rao, Marcella Ohira.

Summary Notes:

**Prepared by Helena Chapman (NASA HQ/BAH)*

John Haynes (NASA HQ) opened the telecon by welcoming all participants. He invited CoP members to provide brief updates on upcoming conferences and related activities.

John Haynes (NASA HQ) mentioned that AmeriGEO Week 2021, which will be held from August 23-27, 2021, will include a 90-minute session on Health topics. He said that he will share information about this Health session as logistical details are confirmed. Next, he stated that more than 270 participants attended the NASA [HAQAST Launch21 Public Meeting](#) on March 3, 2021. At this event, he said that the 14 principal investigators of the 2021-2025 HAQAST Team presented their upcoming work and connected with attendees. He also shared that team members described the upcoming Tiger Teams, which are short-term projects where principal investigators focus their expertise in close collaboration on an air quality and public health issue that stakeholders identify. He confirmed that these discussions are ongoing. Then, he mentioned that the NASA Health and Air Quality Applications program supported a virtual panel session, *NASA Earth Observations for Improved Vector-borne Disease Surveillance Symposium*, and individual presentation, *Using Satellite Data to Enhance One Health Networks in Vector Control* (Disease & Vector Studies

session), at the [American Mosquito Control Association's Annual Meeting](#) on March 5, 2021. He said that over 130 participants attended these sessions, demonstrating significant interest in the use of Earth observations for vector-borne disease research applications. Finally, he stated that the [NASA Aerosol, Cloud, Convection and Precipitation \(ACCP\) Air Quality Workshop](#), which was held from March 16-18, 2021, had more than 160 participants. He said that this workshop offered scientific presentations and open discussions on how this new NASA satellite and Early Adopter Program can be used in air quality, environmental health, and disaster applications.

Helena Chapman (NASA HQ/BAH) thanked CoP members for sharing their activities and resources on the listserv. First, she reminded CoP members about the upcoming deadlines for panel abstract submissions to the 102nd Annual Meeting of the [American Meteorological Society](#) (January 23-27, 2021) on [April 1, 2021](#), and the [American Geophysical Union Fall Meeting 2021](#) (December 13-17, 2021) on [April 14, 2021](#). Then, she mentioned that the upcoming ARSET training [Introduction to Population Grids and their Integration with Remote Sensing Data for Sustainable Development and Disaster Management](#) will be held on March 30 and April 6, 2021, from 10:00AM-12:00PM EDT (GMT-4) or 3:00-5:00PM EDT (GMT-4).

Helena Chapman (NASA HQ/BAH) introduced **Marjan van Meerjoo (European Commission)**, who described the [European Innovation Council's Horizon Prize on Early Warning for Epidemics](#). She mentioned that this award noted the challenge of scalable, reliable and cost-effective early warning system prototypes to forecast and monitor vector-borne diseases. She said that the application period closed in February 2021, and that the committee will be evaluating projects for the award ceremony in September 2021. She also shared that Horizon Europe will be offering additional research activities for Pillar 2 (Global Challenges and European Industrial Competitiveness), which includes health, climate, and environmental topics. She said that CoP members can contact her (marjan.van-meerloo@ec.europa.eu) with any further questions.

Adrian Guzmán (Mexican Space Agency) asked about upcoming opportunities for Latin American countries to participate in this initiative, citing that Mexico had participated in the past FP6 and FP7 frameworks. **Marjan van Meerjoo (European Commission)** mentioned that they encourage global participation and would be happy to share more information with him.

Helena Chapman (NASA HQ/BAH) introduced **Antar Jutla (U. of Florida)**, who described some preliminary findings from his research project, "Earth Observations Inspired Prediction of Risk of Airborne Infectious Pathogens: A Curious Case of COVID-19". He provided their research website with details of the [COVID-19 risk prediction](#), and shared that since social behavior cannot be separated from the surrounding environment, an adaptive climate-informed decision matrix may be the next step to predict disease outbreaks.

Helena Chapman (NASA HQ/BAH) then introduced **Ben Zaitchik (Johns Hopkins U.)**, who described the [recent report](#) by the WMO COVID-19 Research Board's Task Team (July 2020-December 2021), as an interdisciplinary expert group established in June 2020 to support the global response to COVID-19. He reminded CoP members that the aims were to: 1) provide COVID-19 decision relevant knowledge about weather, solar radiation, and air pollution; and 2) provide a platform to discuss science-based insights and form functional partnerships. He presented the established key findings related to the state of understanding and best practices for research and forecasts related to the COVID-19 pandemic. Then, he presented an update from his current research that aims to harmonize Earth observation datasets with COVID-19 cases ([unified dataset](#)).

Susan Anenberg (George Washington U.) shared that this research can link environmental variables with infectious diseases, which are on appropriate spatial scales and can lower barriers of entry for researchers who use these data. She also reminded CoP members about the upcoming National Academies of Sciences, Engineering, and Medicine workshop, [Leveraging Advances in Remote Geospatial Technologies to Inform Precision Environmental Health Decisions - A Workshop](#), which will be held on April 14-15, 2021. **Josh Colston (U. of Virginia)** mentioned that this research will contribute significantly to the scientific knowledge base, since it focuses on different regions and provinces as the pandemic has unfolded.

John Haynes (NASA HQ) asked about the next proposed update by the WMO COVID-19 Research Board's Task Team. **Ben Zaitchik (Johns Hopkins U.)** mentioned that although they do not have a confirmed date for a future update, they are discussing the best approach (e.g. report vs round table) for this next update.

John Haynes (NASA HQ) stated that as the US has continued with the presidential transition, the Biden administration has nominated former Senator Bill Nelson (Florida) to serve as the next NASA Administrator. He said that the Senate confirmation hearings are planned to occur during Summer 2021.

Helena Chapman (NASA HQ/BAH) asked the Small Work Group leads to share their upcoming telecons planned with CoP members. **Dorian Janney (GPM mission/NASA GLOBE)** mentioned that the Food Safety and Security Small Work Group has been scheduled for Friday, April 2, 2021 (11:00AM-12:00PM EDT/GMT-4). **Ben Zaitchik (Johns Hopkins U.)** shared that the Heat Small Work Group has been scheduled for Wednesday, April 7, 2021 (10:00-11:00AM EDT/GMT-4). **Antar Jutla (U. of Florida)** stated that the Infectious Disease Small Work Group will be scheduled next month. The Small Work Group leads reminded CoP members that these telecons are open to all CoP members.

John Haynes (NASA HQ) thanked CoP members for their continued contributions to the field and engagement in the group discussion. He agreed that this telecon had provided an opportunity to share information, connect researchers, and leverage resources that can amplify current activities using Earth observations for public health applications.

John Haynes (NASA HQ) closed the telecon and mentioned that the next telecon will be scheduled for Tuesday, April 20th at 8:30AM EDT (GMT-4). This telecon will focus on air quality issues, highlighting the upcoming TEMPO and MAIA satellite missions.

Adjourned: 9:55AM EDT (GMT-4)